

REMARKS

Claims 1-22 are pending in the application. Claims 6-12 and 17-22 are withdrawn. Claim 1 is currently amended. Applicant respectfully requests for allowance of claims 1-5 and 13-16 based on following discussions.

Election/Restriction

Examiner maintains the restriction requirement of July 17, 2009, citing that claim 1 is not a generic claim encompassing species I-IV. Specifically, Examiner asserts that claim 1 is directed to a method comprising **setting an initial flow out of the chamber** for achieving over pressurization, whereas species II involves the principle of **increasing mass flow rate into a chamber** to achieve over pressurization, thereby they are distinct inventions. *See, the Office Action, page 2.*

Applicant notes that “setting an initial flow out of the chamber” and “increasing mass flow rate into a chamber”, though different, are not mutually exclusive. The fact that they are distinct does not preclude species II from depending on the generic claim 1. Applicant reserves the right to petition for review of the restriction under 37 CFR 1.144.

Objections to Specification

The abstract of the disclosure is objected to because it contains the phrase “Iperiod has elapsed” which is not clear. In response, the abstract has been amended by deleting the phrase. Thus, Applicant respectfully requests that the objection be withdrawn.

Rejections under 35 USC 112

Claim 1 is rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, claim 1 recites “the rate of pressure increase” which lacks antecedent basis.

In response, claim 1 has been amended by replacing “~~the~~ rate of pressure increase” with “**a** rate of pressure increase.” As such, Applicant respectfully requests that the rejection be withdrawn.

Rejections under 35 USC 102

Claims 1-5, and 13-16 are rejected under 35 USC 102(b) as being anticipated by US Patent No. 6,142,163 to McMillin et al. (hereinafter referred to as “McMillin”).

Independent claim 1, as amended, is directed to a method of setting the pressure in a chamber of a vacuum system to a required pressure, the system comprising a pressure control system including a pump for evacuating gas from the chamber, a valve down stream of the pump, and a flow controller for allowing the flow of gas into the chamber, the method comprising: setting an initial flow out of the chamber for achieving a pressure above the required pressure so as to increase a rate of pressure increase, the initial flow occurring over a transient period which does not allow the pressure to exceed the required pressure, and setting a preset flow out of the chamber after the transient period has elapsed for achieving and maintaining the required pressure, wherein the setting comprises varying a conductance of the valve down stream of the pump.

The language “*wherein the setting comprises varying a conductance of the valve down stream of the pump*” added to claim 1 is supported by the specification. For example as illustrated in FIG. 6 of the specification, valve 20 is located down stream of pump 14. “In FIG. 6, valve 20 is positioned down-stream of pump 14 and is operable for controlling the effective pumping speed and hence the pressure in chamber 12.” *See, the specification, page 7, lines 6-11.*

McMillin fails to teach, suggest, or imply “*wherein the setting comprises varying a conductance of the valve down stream of the pump.*” As shown in FIG. 2 of McMillin, although gate valve 124 is connected up stream to pump 126, nothing is connected down stream to it. Since McMillin fails to teach each and every element of claim 1, it cannot anticipate the claimed invention under 35 USC 102(b).

It would not have been obvious for a person skilled in the art to modify McMillin by moving gate valve 124 down stream of pump 126. McMillin teaches a ballast port 150b immediate adjacent to gate valve 124. *See, col. 6 line 65 – col. 7 line 3.* Moving gate valve 124 down stream of pump 126 would render ballast port 150b ineffective for its purpose, i.e., controlling the pressure in reaction chamber 106. *See, col. 6, lines 58-61.*

Thus, Applicant respectfully submits that claim 1 is patentable over McMillin under 35 USC 102(b). Accordingly, claims 2-5, and 13-16 that depend from claim 1 and include all the limitations recited therein are also patentable over McMillin under 35 USC 102(b).

CONCLUSION

Applicant has made an earnest attempt to place this application in an allowable form. In view of the foregoing remarks, it is respectfully submitted that the pending claims are drawn to a novel subject matter, patentably distinguishable over the prior art of record. Examiner is therefore, respectfully requested to reconsider and withdraw the outstanding rejections.

Should Examiner deem that any further clarification is desirable, Examiner is invited to telephone the undersigned at the below listed telephone number.

Applicant does not believe that any additional fee is due, but as a precaution, the Commissioner is hereby authorized to charge any additional fee to deposit account number 50-4244.

Respectfully submitted,

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